

REMARKS

The Office Action mailed on May 9, 2003, has been received and reviewed.

Claims 1-23 and 40-54 are currently pending in the above-referenced application. Of these, claims 3, 5, 19, 21, 42, and 51 have been withdrawn from consideration as being drawn to non-elected species of invention. Claims 1, 2, 4, 13, 17, 18, 20, 40, 41, 45, 49, 50, 52, and 54 stand rejected. The indication that claims 6-12, 14-16, 22, 23, 43, 44, 46-48, and 53 recite allowable subject matter is appreciated.

Reconsideration of the above-referenced application is respectfully requested.

Rejections Under 35 U.S.C. § 102(e)

Claims 1, 2, 4, 13, 17, 18, 20, 40, 41, 45, 49, 50, 52, and 54 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the subject matter described in U.S. Patent 6,224,474 to Vander Voort (hereinafter "Vander Voort").

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single reference which qualifies as prior art under 35 U.S.C. § 102. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Vander Voort describes a grinding or polishing apparatus, as well as an element for securing a grinding or polishing cloth to a rotatable platen of a grinding or polishing apparatus. The element, which is referred to in Vander Voort as a barrier element 80 (FIGs. 1-5), includes a lower portion 40 and an upper portion 50. The lower portion 40 is formed from a material that will be magnetically attracted and, thus, securable to a magnetic element 30 that is, in turn, configured to be secured to the surface of a rotatable platen 10. The upper portion 50 is formed from a material which prevents passage of a magnetic field emanated by the magnetic element 30 therethrough. The grinding or polishing cloth, which is also referred to in Vander Voort as a "grinding or polishing preparation element 70," is configured to be supported by an upper surface of the upper portion 50 of the barrier element, and may be secured thereto with a

pressure-sensitive adhesive 65. Thus, the barrier element 80 of the apparatus described in Vander Voort is configured to be secured to the grinding or polishing preparation element 70.

Independent claim 1, as amended and presented herein, recites an apparatus for polishing one or more layers of a semiconductor device structure which includes, among other things, “a subpad located between [a] subpad support and [a] polishing pad . . . while remaining unsecured relative to [the] polishing pad.”

When contrasted with the subject matter described in Vander Voort, it is clear that Vander Voort neither expressly nor inherently describes an apparatus for polishing one or more layers of a semiconductor device structure which includes a subpad which is located between a subpad support and a polishing pad without being secured to the polishing pad. Instead, the description of Vander Voort is limited to a barrier element 80 which is configured to be secured to both a magnetic element 30 which is, in turn, supported by a platen 10 and to a grinding or polishing preparation element 70.

Therefore, it is respectfully submitted that, under 35 U.S.C. § 102(e), amended independent claim 1 is allowable over Vander Voort.

Claims 2, 4, and 13 are each allowable, among other reasons, as depending from claim 1, which is allowable.

Claim 2 is additionally allowable since Vander Voort does not expressly or inherently describe that the grinding or polishing preparation element 70 thereof may comprise a web format polishing pad or a belt format polishing pad, let alone anything other than a rotatable polishing pad.

Claim 4 is further allowable since Vander Voort includes no express or inherent description that a negative pressure may be applied through the magnetic element 30 thereof to a bottom surface of the barrier element 80 thereof. It is well known that a magnetic field is not a negative pressure.

Independent claim 17, as amended and presented herein, recites a subpad support which includes a subpad retention element. The subpad retention element is configured to retain a

subpad which is not configured to be secured to a polishing pad of the apparatus of which the subpad support is a part.

Again, the description of Vander Voort is limited to an apparatus which includes a barrier element 80 (which the Office apparently believes to be analogous to the subpad of independent claim 17), which is configured to be secured to a platen 10 by way of a magnetic element 30 and which is configured to have a grinding or polishing preparation element 70 secured thereto.

Accordingly, it is respectfully submitted that Vander Voort does not anticipate each and every element of amended independent claim 17, as is required to maintain a rejection under 35 U.S.C. § 102(e).

Claims 18 and 20 are both allowable, among other reasons, as depending from claim 1, which is allowable.

Claim 20 is also allowable because Vander Voort does not expressly or inherently describe that the magnetic element 30 thereof is configured to apply a negative pressure to a bottom surface of the barrier element 80 thereof. It is well known that a magnetic field is not a negative pressure.

Independent claim 40, as amended and presented herein, recites an apparatus for polishing one or more layers of a semiconductor device structure. The apparatus of amended independent claim 40 includes, among other things, a polishing pad, a subpad, and a subpad support. While the subpad support of amended independent claim 40 includes a subpad retention element, amended independent claim 40 also recites that the subpad is not secured to the polishing pad.

In contrast, for the apparatus of Vander Voort to be useful, a grinding or polishing preparation element 70 must be secured to the barrier element 80 thereof, which is, in turn, secured to a magnetic element 30 and a rotatable platen 10.

Claims 41 and 45 are both allowable, among other reasons, as depending from claim 40, which is allowable.

Claim 41 is further allowable since Vander Voort includes no express or inherent description that a negative pressure may be applied through the magnetic element 30 thereof to a backing of the barrier element 80 thereof. It is well known that a magnetic field is not a negative pressure.

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would* Independent claim 49, as amended and presented herein, recites a subpad support for use in an apparatus for polishing one or more layers of a semiconductor device structure. The subpad support includes a substantially planar support surface configured to receive a subpad and a subpad retention element associated with the support surface. The subpad retention element retains the subpad in position while maintaining the subpad in nonsecured relation relative to a polishing pad of the apparatus.

In the apparatus described in Vander Voort, the magnetic element 30 (which the Office apparently believes to be analogous to the subpad support of independent claim 49) is configured to retain a barrier element 80 (which the Office apparently believes to be analogous to a subpad). The magnetic element 30 is configured to maintain the barrier element 80 in position while a grinding or polishing preparation element 70 (which the Office apparently believes to be analogous to a polishing pad) is secured to the barrier element 80. As the magnetic element 30 of Vander Voort is not configured to retain the barrier element 80 in such a way that the barrier element 80 remains unsecured relative to the grinding or polishing preparation element 70 of the apparatus of Vander Voort, it is respectfully submitted that Vander Voort does not express or inherently describe, or anticipate, each and every element of amended independent claim 49.

It is, therefore, respectfully submitted that, under 35 U.S.C. § 102(e), amended independent claim 49 is allowable over Vander Voort.

Claims 50, 52, and 54 are each allowable, among other reasons, for depending from claim 49, which is allowable.

\$ Claim 54 is additionally allowable because Vander Voort lacks any express or inherent description that the magnetic element 30 thereof is configured to apply a negative pressure to a

bottom surface of the barrier element 80 thereof. It is well known that a magnetic field is not a negative pressure.

Allowable Subject Matter

The indication that claims 6-12, 14-16, 22, 23, 43, 44, 46-48, and 53 recite allowable subject matter is gratefully acknowledged. Nonetheless, none of these claims has been amended to independent form since the subject matter recited in independent claims 1, 17, 40, and 49 is believed to be allowable for the reasons provided herein.

Election of Species Requirement

Claims 3, 5, 19, 21, 42, and 51 have been withdrawn from consideration as being drawn to non-elected species of invention. As independent claims 1, 17, 40, and 49 remain generic to all of the species of invention that have been identified by the Office, consideration and allowance of claims 3, 5, 19, 21, 42, and 51 is respectfully requested.

CONCLUSION

It is respectfully submitted that each of claims 1-23 and 40-54 is allowable. An early notice of the allowability of these claims and an indication that the above-referenced application has been passed for issuance are respectfully solicited. If any issues preventing allowance of the above-referenced application remain which might be resolved by way of a telephone conference, the Office is kindly invited to contact the undersigned attorney.

Respectfully submitted,



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